



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,632	04/11/2001	Klaus Kapfer	6504-1228	1808
23644	7590	04/06/2005		EXAMINER
BARNES & THORNBURG			LUK, EMMANUEL S	
P.O. BOX 2786				ART UNIT
CHICAGO, IL 60690-2786				PAPER NUMBER
			1722	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/832,632	KLAUS KAPFER	
	<b>Examiner</b>	<b>Art Unit</b>	
	Emmanuel S. Luk	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 December 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 4-18 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 and 15-18 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,4-9,13 and 14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Abrams.

Abrams teaches a screw type compounding unit having a housing (Fig. 3), a screw (30), an motor (75), two metering devices (40, 30) and metering motor (42, 75), processing unit (18, 118) and a controller (32). The controller (32) is able to trigger the drive motor (92) of the screw (30), the knife driver (118) via control block (106) and the motor of the agitator (40) via control box (44). A press (18) is located downstream of the extruder (Fig. 1) having a conveyance system (190) for bringing the material to the mold (20). The controller for the metering is coupled to the controller for the screw (Col. 4, lines 60-62). The unit is capable of operating within the claimed run-up time and deceleration time as the operation of the motor is an intended use of the apparatus. Abrams does teach a control unit it and it is also capable in operating under the claimed conditions.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams as applied to claims 1 and 4-7 above, and further in view of Scheuring (5879602).

Abrams fails to teach an inlet for rovings.

Scheuring teaches an extruder (38) having an inlet (35) for mixing of fibers into the extruder for production of a unidirectionally reinforced potrusion profile with excellent surface quality (Col. 8, lines 5-6). In regards to rovings, this is an intended use of the inlet in the apparatus and other materials can be added into the extruder via inlet, including colorants.

6. Claims 9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams as applied to claims 1 and 4-7 above, and further in view of Coon, Sr., et al (2691218) or Fisher (British Plastics).

The compounding unit in Abrams is well known in the molding arts and the function of plasticizing the material is the same as an extruder.

Abrams fails to teach plunger-injection molding and double screws.

Hendry teaches an apparatus having an extruder (17) and plunger-injection (11) into a mold (16), the control of the plasticizing motor (23,24) and the metering of the ram (13) via electronic control device (25) having an electronic timer (26), the control allows for timing of the screw and ram. Both the press and injection molding machines are well known molding units in the molding arts.

Coon, Sr. teaches double screws (156,158) used in an extruder (160; seats) for molding butter. The use of twin screws in the molding arts is well documented and is also shown by Fisher (British Plastics) with a twin screw plasticizer (Fig. 4, page 419).

It would have been obvious to one of ordinary skill in the art to modify Abrams with the controller and plunger-injection molding machine as taught by Hendry because it allows for improved injection control of the material into the mold and substitution of the screw with twin screws as taught by Coon, Sr., or Fisher, because it has the improved plasticizing effect on the material.

***Response to Arguments***

7. Applicant's arguments filed 5/14/2004 have been fully considered but they are not persuasive. Examiner has withdrawn the 101/112 rejection as the newly amended claims now has the control unit configured to operate at a condition. Examiner has never stated in his action "that it has to define the control unit in terms of source code or the like". However, the functional language of the control unit only describes what conditions the control unit is operating the apparatus and the Abram reference has a control unit that needs only to be capable of operating at the claimed functional parameters. The other argument concerning extruders, the claims do not preclude the screw from moving in the axial direction. The Abrams reference teaches the claimed structure and is capable of operating in the applicant's condition for an extruder.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 8 to 5 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on (571) 272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EL



BENJAMIN L. UTECH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY 1700